

REMARKS

The Office examined claims 1-13 and rejected same. With this paper, none of the claims are amended, none are added and none are canceled.

Claim Rejections under 35 USC §103

Claims 1-13 are rejected under 35 USC §103(a) as being unpatentable over Bantukul *et al.* (U.S. Patent Application Pub. No. 2003/0091020) in view of Lorello *et al.* (U.S. Patent No. 6,459,904).

Claim 1 recites a method for executing a communication attempt (e.g. delivering a short message) with a mobile terminal device in a cellular communication network having a Short Message Service Center (SMSC). The communication attempt is executed according to the attainability status of the mobile terminal device. The attainability status of the mobile terminal device is determined by evaluating connection related data stored in the SMSC. The connection related data is related to messages pending for delivery to the mobile terminal device (e.g. if there are messages pending for delivery, the mobile terminal device is not attainable, otherwise, it is attainable). If the mobile terminal device is attainable, the communication attempt to the mobile terminal device is executed.

Therefore, what is recited in claim 1 is that whether or not a mobile terminal device is attainable for receiving a message is determined by querying the SMSC for connection related data relating to messages pending for delivery to the device. The method of claim 1 does not require an attempt to deliver an actual message to the mobile terminal device in order to find out if the device is attainable or not.

In rejecting claim 1 on the ground of obviousness, the Examiner cites Bantukul for teaching delivering short messages to a mobile terminal device, but admits that Bantukul fails to teach the steps of claim 1: “querying said SMSC in said cellular network for obtaining an attainability status of said mobile terminal device by evaluating connection related data stored in said SMSC, wherein said connection

related data is related to messages pending for delivery to said mobile terminal device, and delivering said communication attempt to said mobile terminal device in accordance with said attainability status.” The Examiner then asserts that Lorello teaches the above steps.

At the locations cited by the Examiner (col. 4, lines 1-39, col. 4, lines 40-58, and col. 9, lines 35-49), Lorello teaches how to find out if a subscriber is available for receiving a short message. The SMSC receives a short message intended for a subscriber from a source of short messages. Upon receiving the short message, the SMSC sends a request for routing information to the HLR. The HLR maintains information regarding the availability of the intended subscriber and the appropriate MSC that services the intended subscriber, and sends the information as routing information back to the SMSC. The SMSC forwards the short message to the appropriate MSC using the routing information received from the HLR. The MSC queries the VLR for subscriber information. The VLR may perform a paging and authentication process, and sends the subscriber information to the MSC. The MSC, using the information received from the VLR, delivers the short message to the intended subscriber, and sends a delivery report to the SMSC. When the attempted delivery of the short message has failed because, for instance, the intended user was out of the service area, or had his or her communication device turned off, the MSC informs the HLR of the failure. The HLR then turns on an SMS notification indicator flag for the subscriber, and the SMSC retains the failed message for a later delivery attempt.

Applicant respectfully submits that, in the present invention, a query for obtaining an attainability status of a mobile terminal device DOES NOT comprise a request from the SMSC to the HLR for routing information of the terminal device, as taught by Lorello. The attainability of a terminal device is obtained by evaluating connection related data stored in the SMSC itself. The connection related data is related to messages pending for delivery to the mobile terminal device. In the present invention, the execution of a communication attempt is made depending on the so-determined attainability, i.e. whether there are other (previous) messages that have not been delivered. A delivery of the message is performed if no pending

message are found, and that the delivery of the message is delayed or postponed (or even canceled) if pending message are found in the SMSC.

As of the indication of attainability of a device, Lorello only discloses the use of a "SMS notification indicator flag for the subscriber". Lorello teaches that such a flag is set AFTER a failure of delivering a message. That means, the SMSC does not check the flag prior to delivering a message so a delivery attempt can be saved if the flag is set. Nowhere in Lorello it is mentioned that the SMSC is required to check if such a notification indicator flag is set or not when requesting routing information. There is, therefore, no mechanism in Lorello to send a request for the SMSC to check pending short messages in its own database or in a HLR of a GSM communication network.

In addition, Lorello discloses the use of the SMS notification indicator flag only in the HLR of a GSM communication system. Lorello does not disclose a step in which the SMSC checks e.g. its own database for a message pending for a certain terminal device (which is the subject matter of claim 1). It is not disclosed in Bantukul or Lorello that the SMSC may be queried for pending messages. The fact that in Lorello an "SMS notification indicator flag" for the internal use in the HLR is disclosed does not suggest a query of an SMSC for pending messages.

Based on the above, the Applicant respectfully submits that Lorello does not teach querying the SMSC in the cellular network for obtaining an attainability status of a mobile terminal device in a way that is recited in claim 1. The passages of Lorello cited by the Examiner (col. 4, lines 1-39, col. 4, lines 40-58, and col. 9, lines 35-49) only teaches that a request is sent from the SMSC to an HLR for an routing information of the mobile terminal. Nowhere in the passages it is disclosed to query an SMSC for obtaining an attainability status of a mobile device by evaluating connection related data stored in the SMSC, and the connection related data is related to messages pending for delivery to the mobile terminal device. Besides, there is no indication in Lorello that the SMSC may be queried for pending messages.

Since the feature of querying the SMSC for messages pending for a terminal device is not disclosed in either of the cited documents, it is not possible for a person skilled in the art to combine the teachings of Bantukul and Lorello to arrive at the present invention.

Regarding Lorello, it is also incorrect to interpret a notification from the HLR to the SMSC upon detecting the availability of the terminal device as a query of the SMSC. In Lorello, the HLR notifies the SMSC that a device is available, but it does not query the SMSC for pending messages. This can be understood from the fact that there is no information transfer from the SMSC to the HLR (or to any other devices) indicating if there are messages pending or not. There is no motivation that a HLR should query the SMSC to determine if there are messages pending for a communication device, as the HLR may already have set the SMS notification indicator flag and therefore should know that at least one message is undelivered. For the HLR it is not necessary to have any information concerning messages pending in an SMSC, as the SMS notification indicator flag can be deleted after the notification has been transmitted.

Therefore, the steps of claim 1, "querying said SMSC in said cellular network for obtaining an attainability status of said mobile terminal device by evaluating connection related data stored in said SMSC, wherein said connection related data is related to messages pending for delivery to said mobile terminal device," and "delivering said communication attempt to said mobile terminal device in accordance with said attainability status," are not disclosed by Lorello.

Neither Bantukul nor Lorello discloses all the limitations of claim 1. Therefore, it is not possible for a person skilled in the art to combine what is disclosed in Bantukul and in Lorello to arrive at the current invention.

Accordingly, the current invention as recited in claim 1 is not obvious with regard to Bantukul in view of Lorello. Applicant respectfully requests the rejection of claim 1 under USC §103(a) be reconsidered and withdrawn.

Moreover, claims 2-6 depend on claim 1. Claims 7-9 are software claims and claims 10-13 are apparatus claims that correspond to the method claim 1 and its

dependents claims. Since claim 1 is believed to be patentable based on the above reasons, these claims are also believed to be patentable. Applicant respectfully requests the rejection of claims 2-13 under 35 USC §103(a) also be reconsidered and withdrawn.

Conclusion

For all the foregoing reasons, it is believed that all of the claims in the instant application are allowable, and their passage to issue is earnestly solicited. Applicant's agent urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

April, 3, 2006  
Date

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